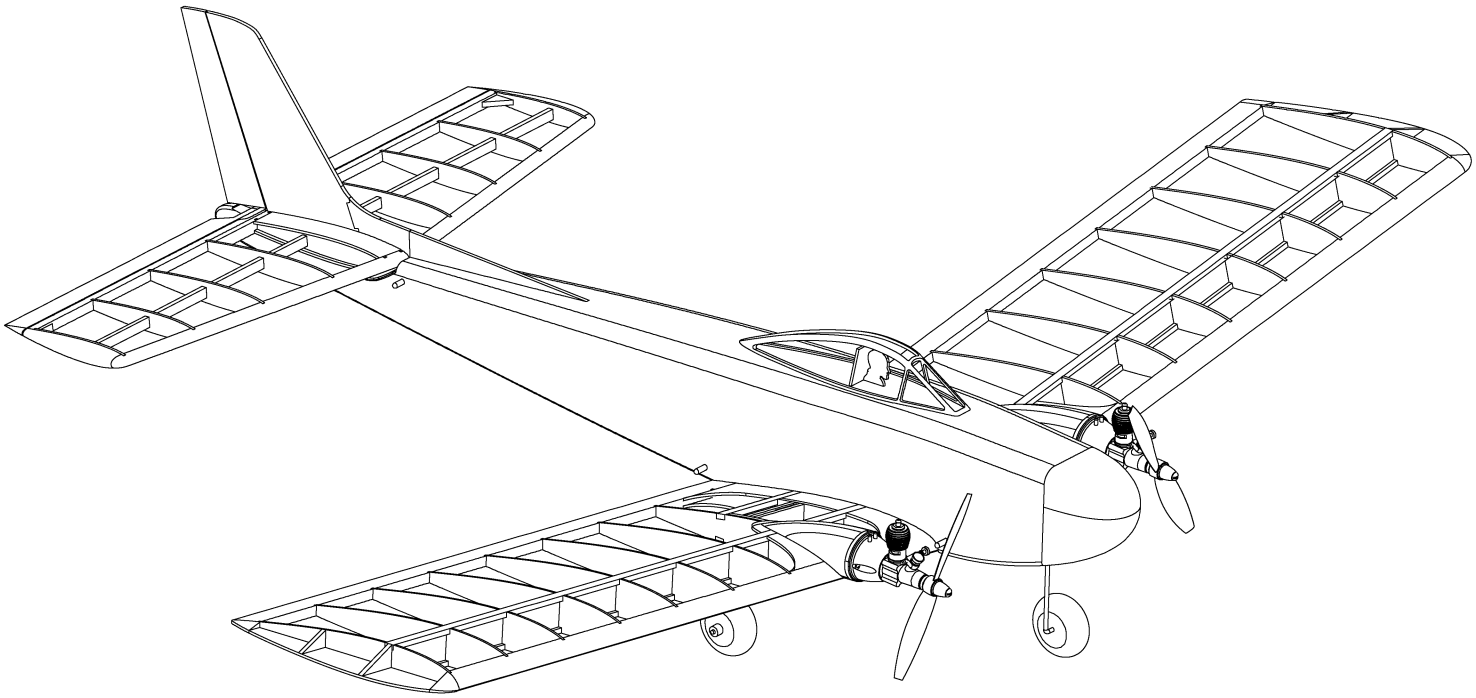
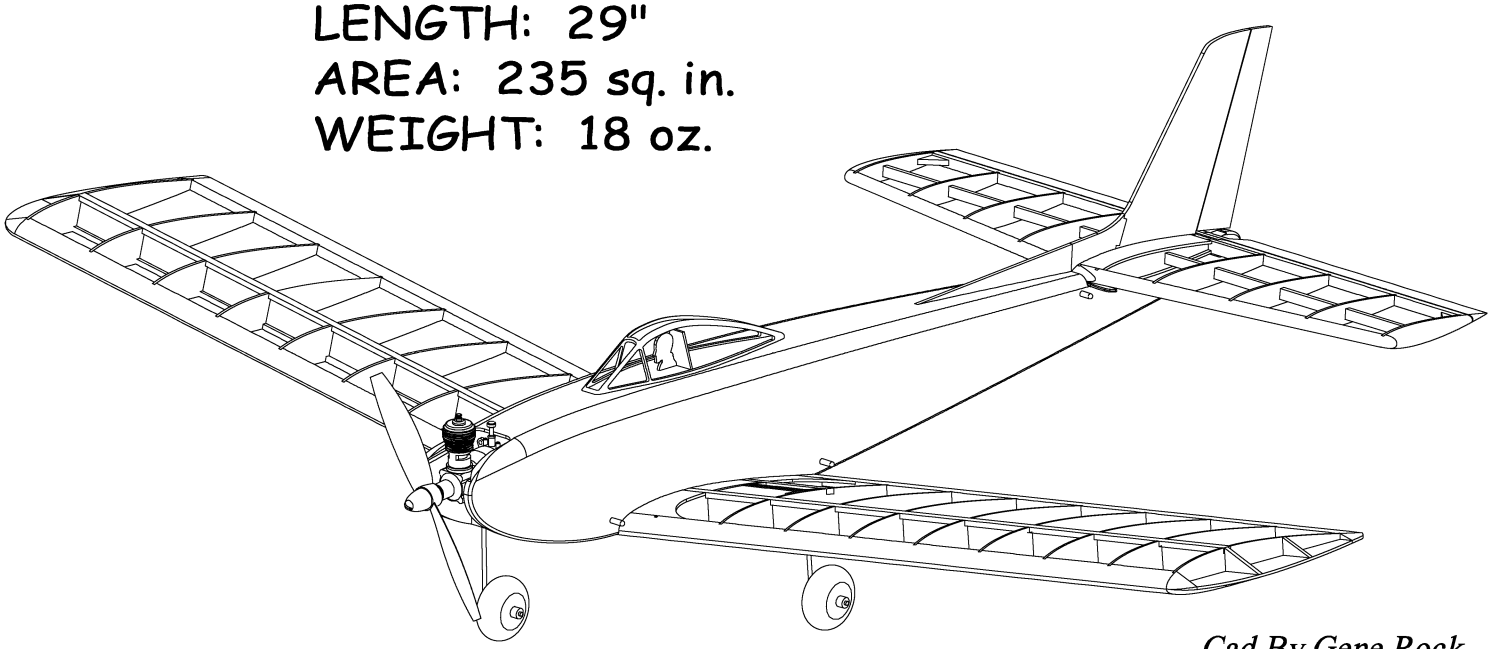
JR. SKYLARK

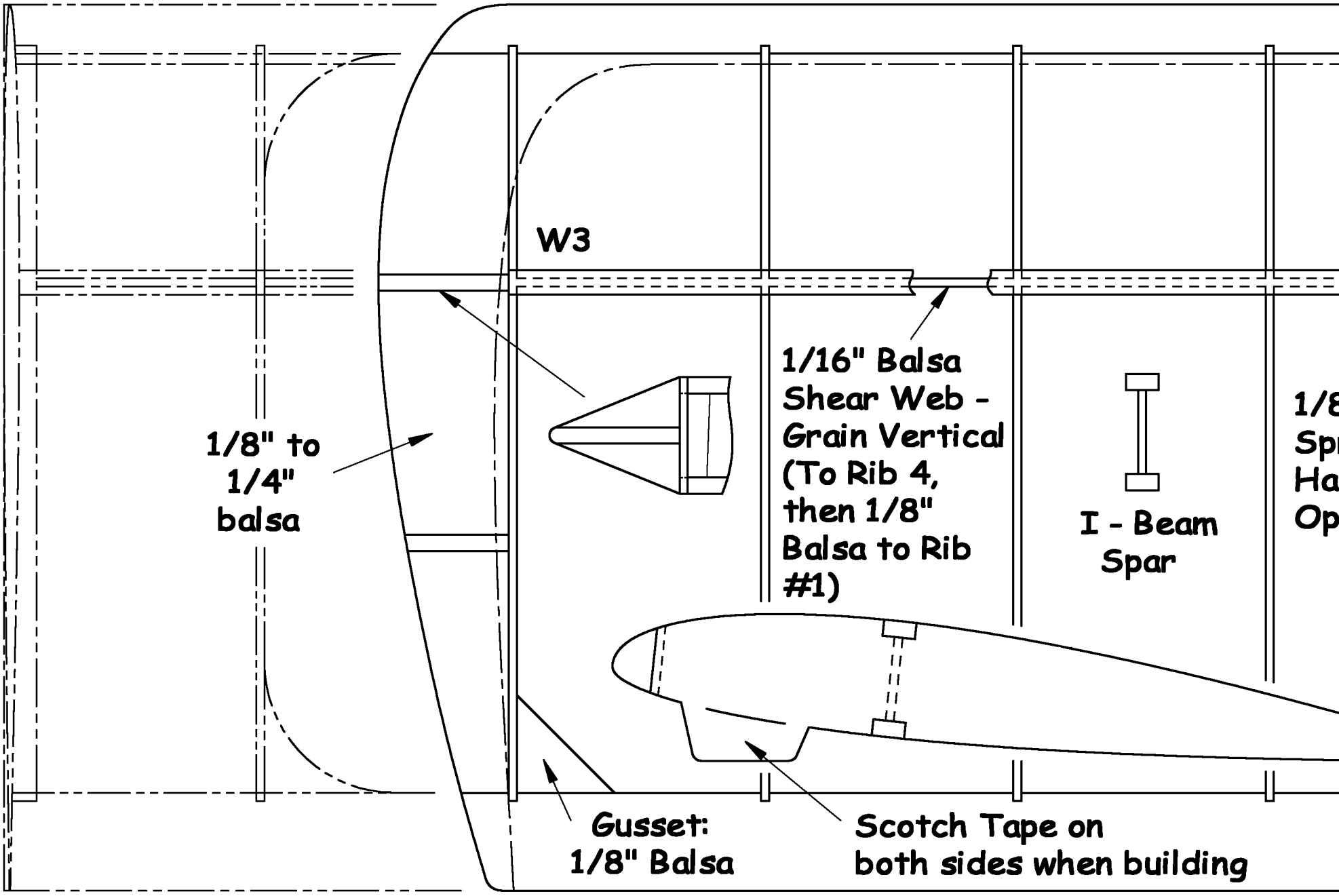
By Carl Goldberg

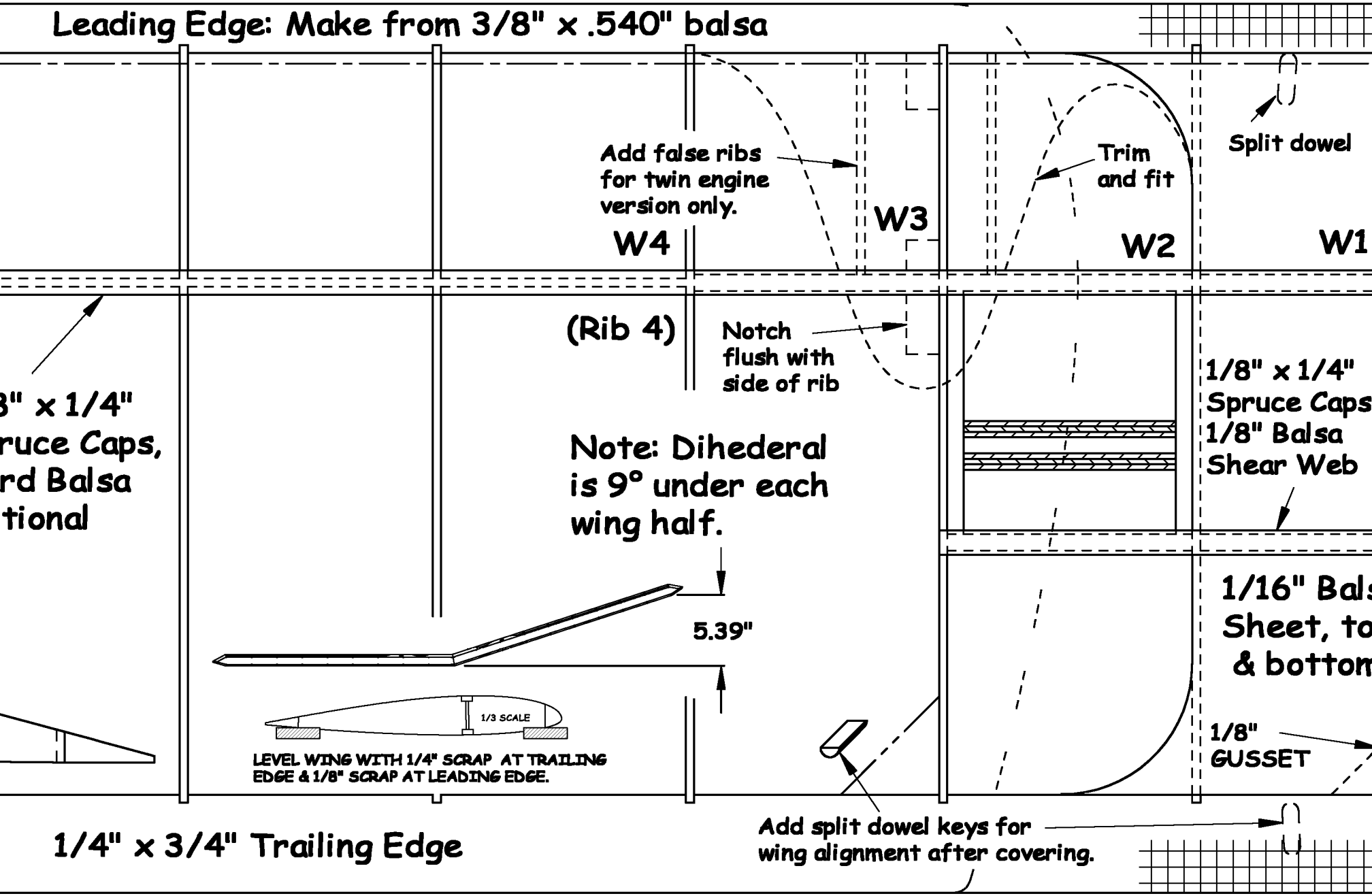


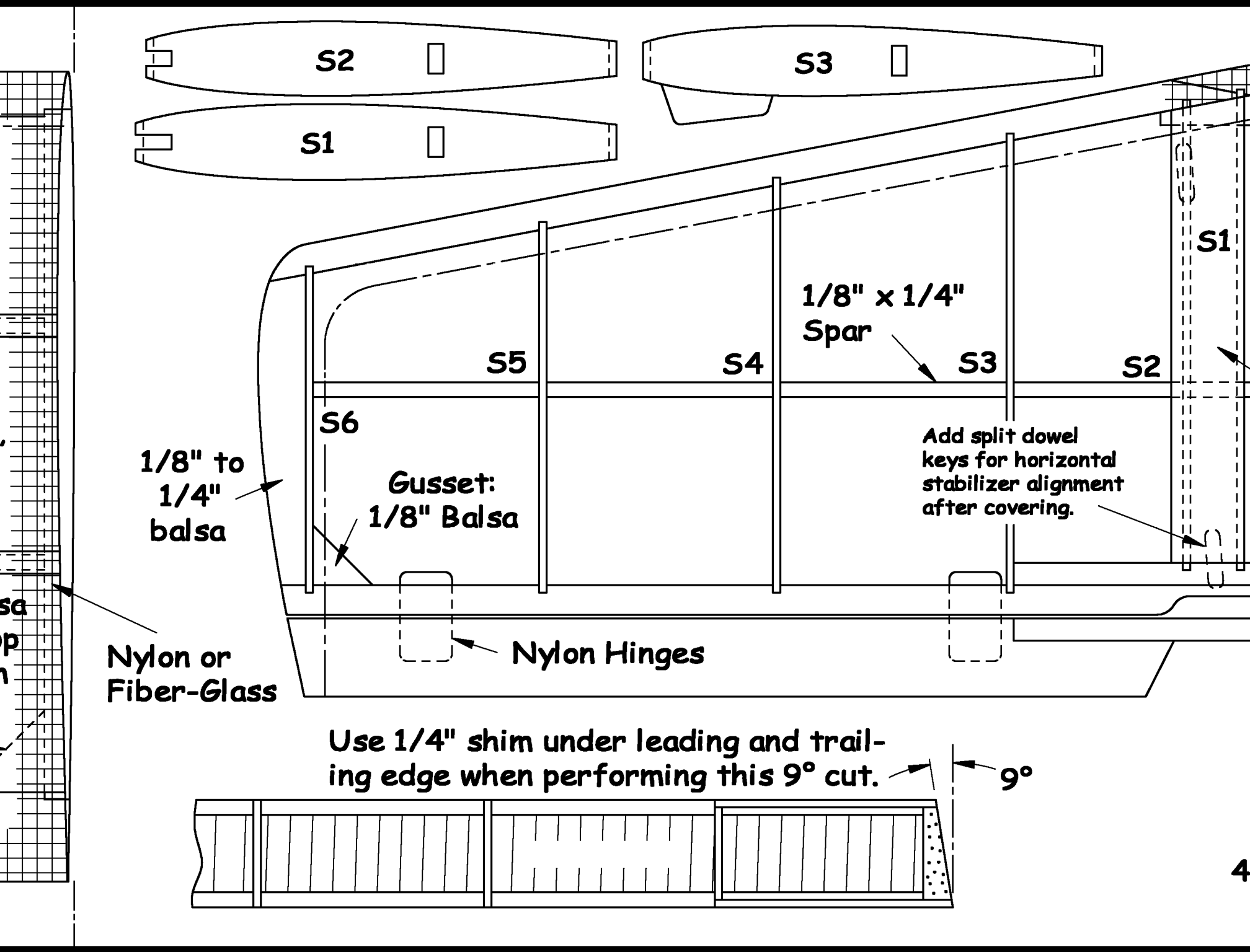
optional single or twin engine R/C
FOR .010 -- .049 ENGINES
SPAN: 37"
LENGTH: 29"
AREA: 235 sq. in.
WEIGHT: 18 oz.

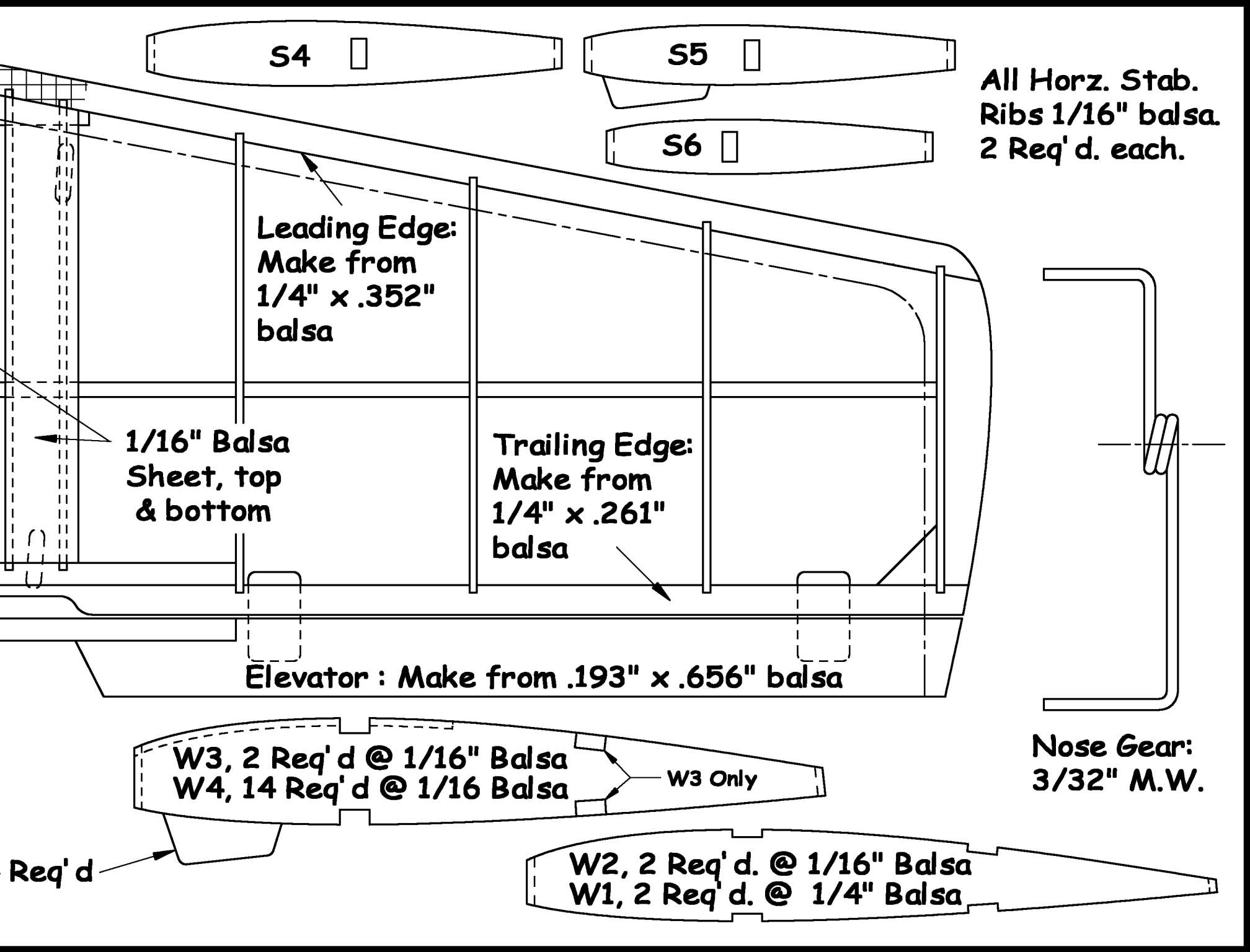


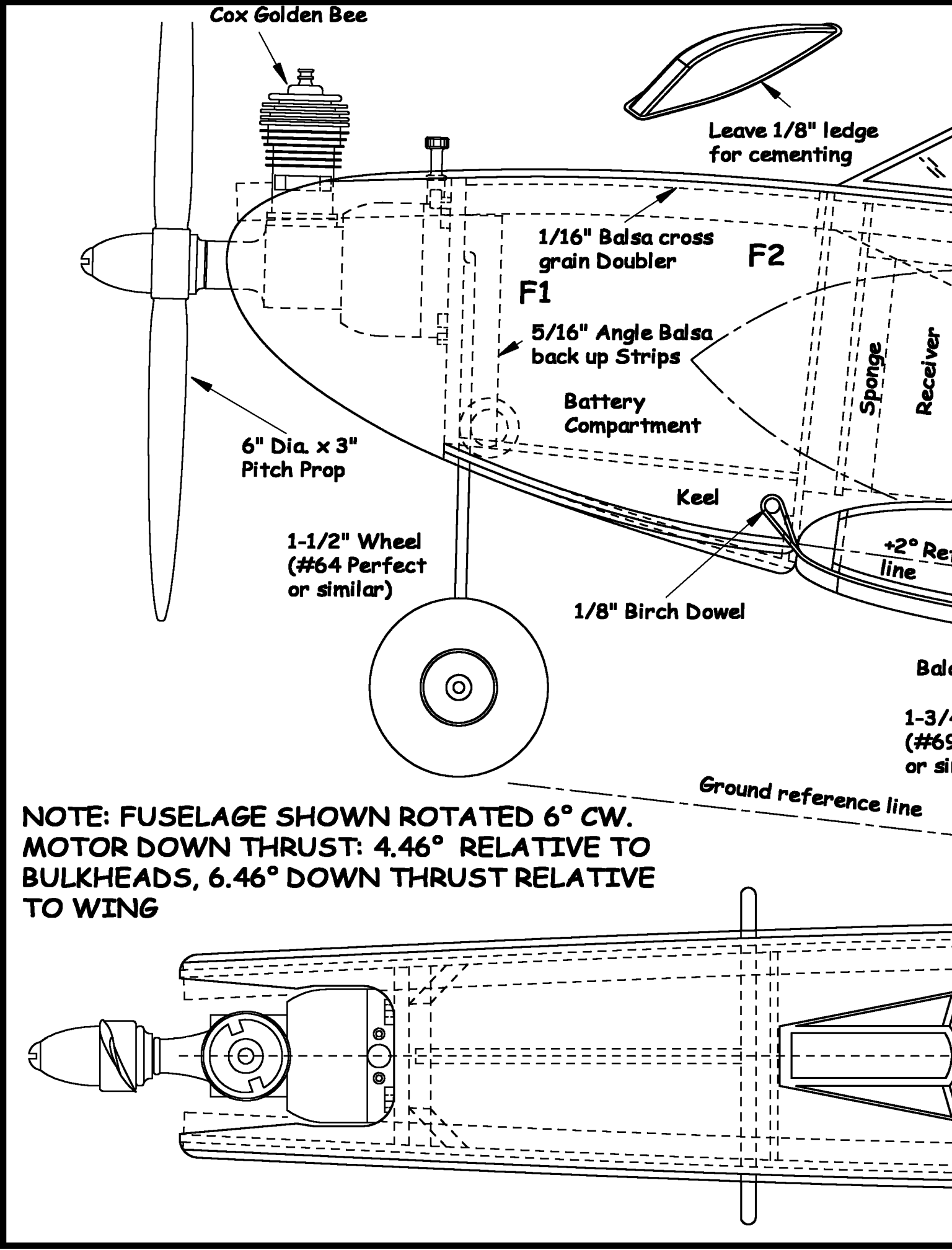
Cad By Gene Rock


W3
1/8" to
1/4"
balsa
1/16" Balsa
Shear Web -
Grain Vertical
(To Rib 4,
then 1/8"
Balsa to Rib
#1)
I - Beam
Spar
Gusset:
1/8" Balsa
Scotch Tape on
both sides when building

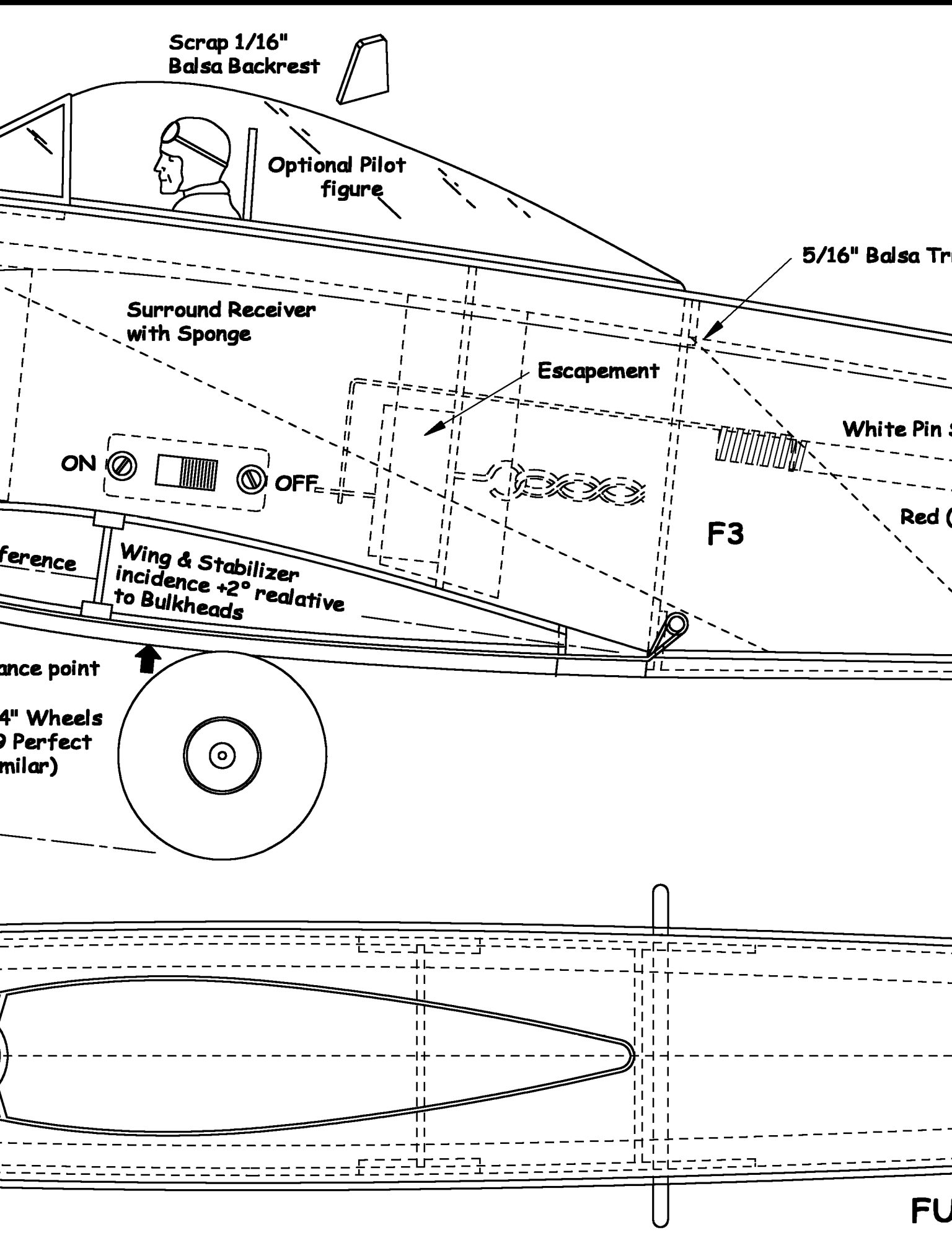

Leading Edge: Make from 3/8" x .540" balsa
Add false ribs for twin engine version only.
W4
W3
Trim and fit
W2
Split dowel
W1
(Rib 4)
Notch flush with side of rib
1/8" x 1/4" Spruce Caps 1/8" Balsa Shear Web
Note: Dihederal is 9° under each wing half.
5.39"
1/3 SCALE
LEVEL WING WITH 1/4" SCRAP AT TRAILING EDGE & 1/8" SCRAP AT LEADING EDGE.
1/16" Bals Sheet, to & bottom
1/8" GUSSET
Add split dowel keys for wing alignment after covering.
1/4" x 3/4" Trailing Edge

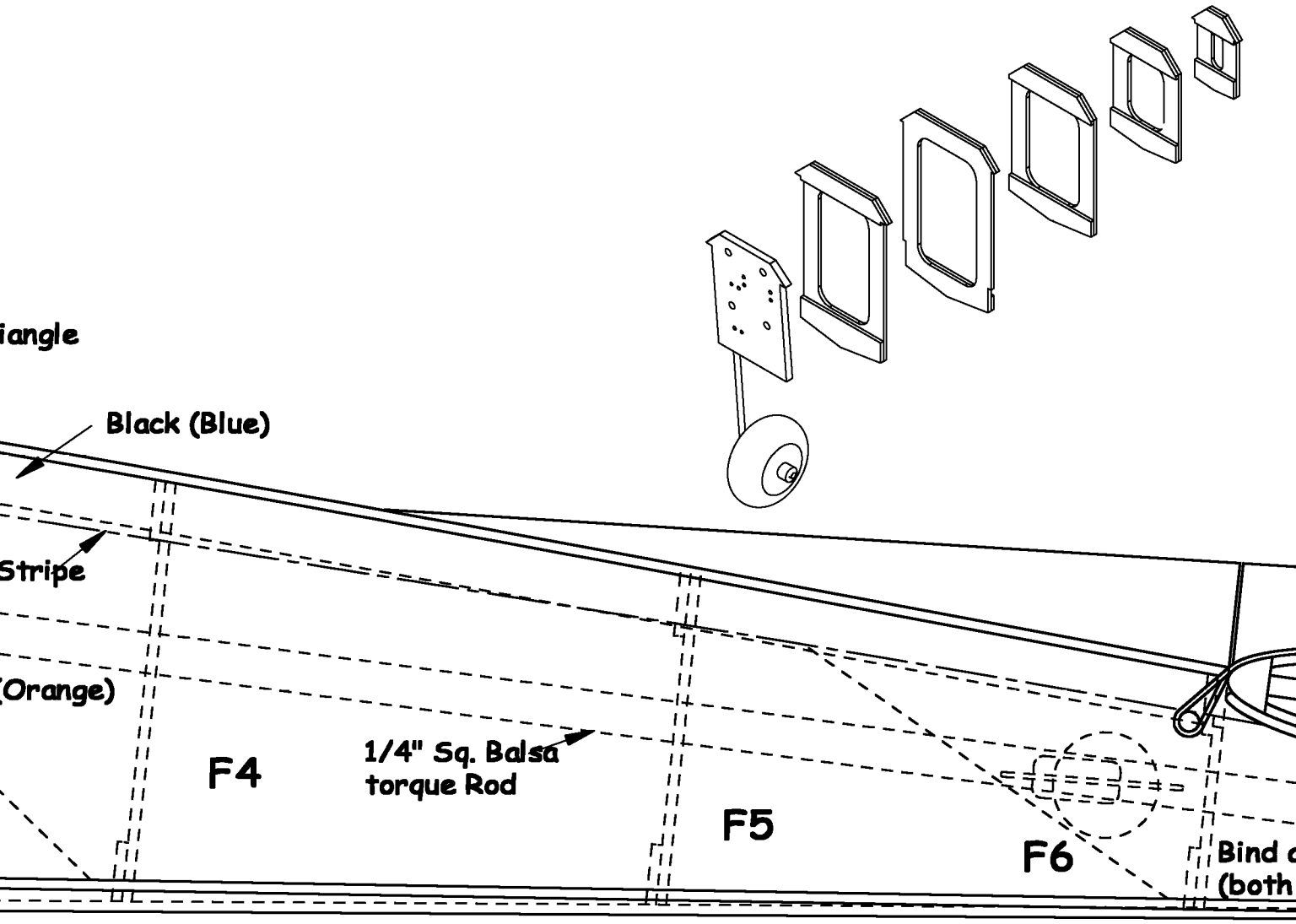

S2
S3
S1
S1
1/8" x 1/4"
Spar
S5
S4
S3
S2
S6
1/8" to
1/4"
balsa
Gusset:
1/8" Balsa
Add split dowel
keys for horizontal
stabilizer alignment
after covering.
Nylon or
Fiber-Glass
Nylon Hinges
Use 1/4" shim under leading and trail-
ing edge when performing this 9° cut.
9°


S4
S5
S6
All Horz. Stab.
Ribs 1/16" balsa.
2 Req'd. each.
Leading Edge:
Make from
1/4" x .352"
balsa
1/16" Balsa
Sheet, top
& bottom
Trailing Edge:
Make from
1/4" x .261"
balsa
Elevator : Make from .193" x .656" balsa
Nose Gear:
3/32" M.W.
W3, 2 Req'd @ 1/16" Balsa
W4, 14 Req'd @ 1/16 Balsa
W3 Only
Req'd
W2, 2 Req'd. @ 1/16" Balsa
W1, 2 Req'd. @ 1/4" Balsa

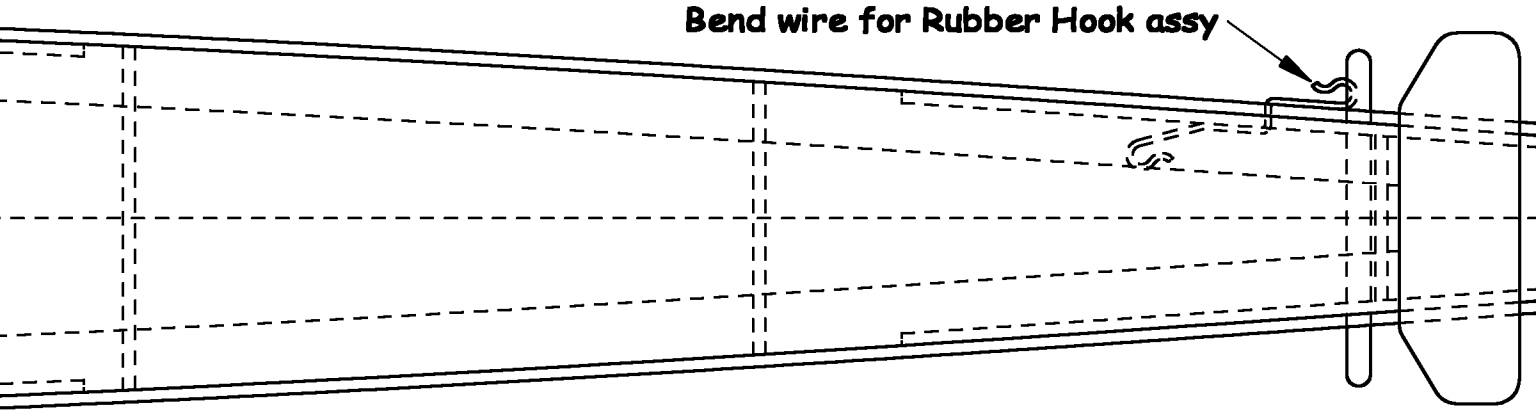


NOTE: FUSELAGE SHOWN ROTATED 6° CW.
MOTOR DOWN THRUST: 4.46° RELATIVE TO BULKHEADS, 6.46° DOWN THRUST RELATIVE TO WING

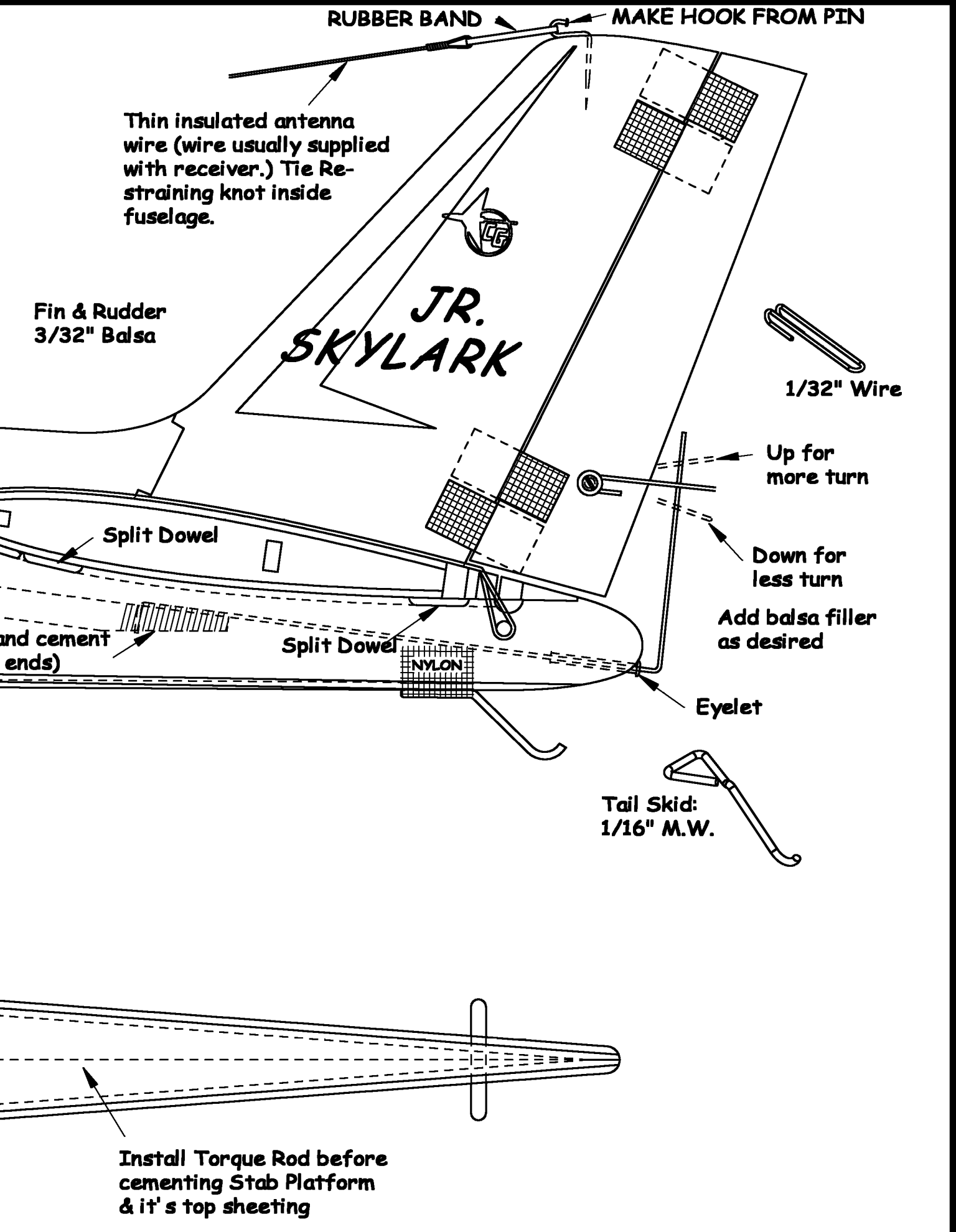

Scrap 1/16"
Balsa Backrest
Optional Pilot
figure
5/16" Balsa Tr
Surround Receiver
with Sponge
Escapement
White Pin
ON
OFF
F3
Red
ference
Wing & Stabilizer
incidence +2° realative
to Bulkheads
ance point
4" Wheels
9 Perfect
milar)
FU



FUSELAGE SIDES, DOUBLERS, TOP
& BOTTOM ALL MADE FROM 1/16" BALSA

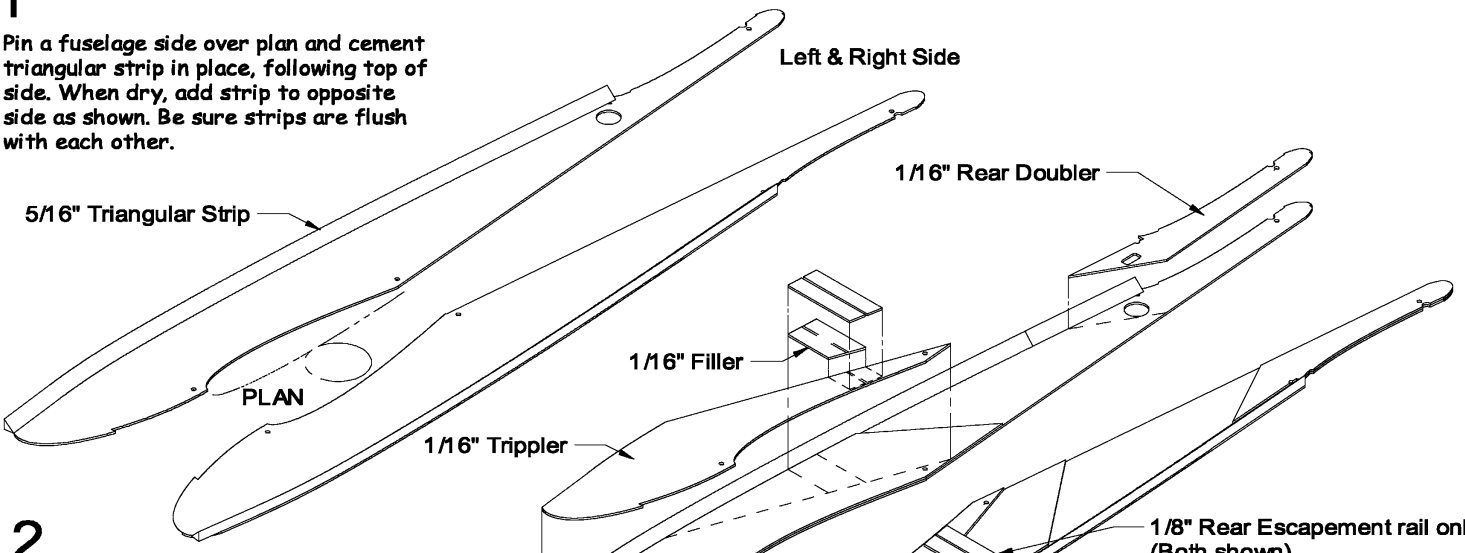


USELAGE ASSEMBLY


RUBBER BAND
MAKE HOOK FROM PIN
Thin insulated antenna wire (wire usually supplied with receiver.) Tie Re-straining knot inside fuselage.
JR.
SKYLARK
Fin & Rudder
3/32" Balsa
1/32" Wire
Up for more turn
Down for less turn
Split Dowel
Add balsa filler as desired
and cement
ends)
Split Dowel
NYLON
Eyelet
Tail Skid:
1/16" M.W.
Install Torque Rod before cementing Stab Platform & it's top sheeting

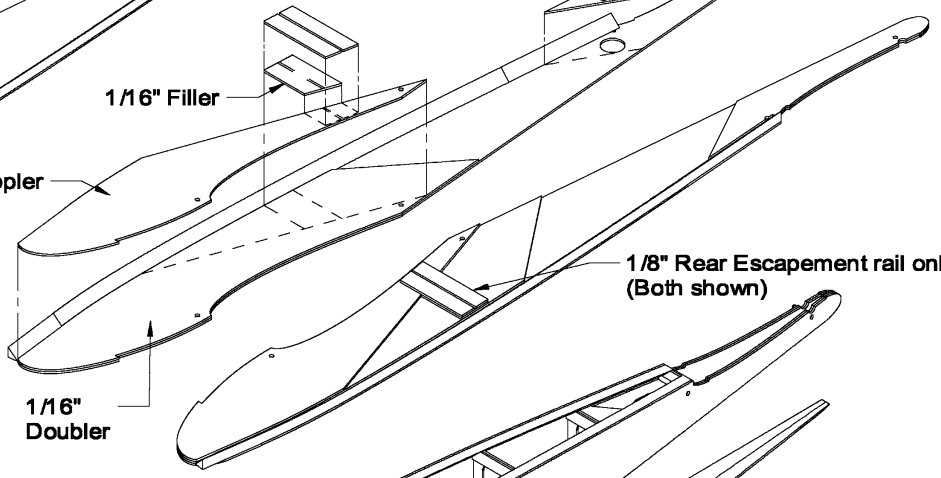
1

Pin a fuselage side over plan and cement triangular strip in place, following top of side. When dry, add strip to opposite side as shown. Be sure strips are flush with each other.



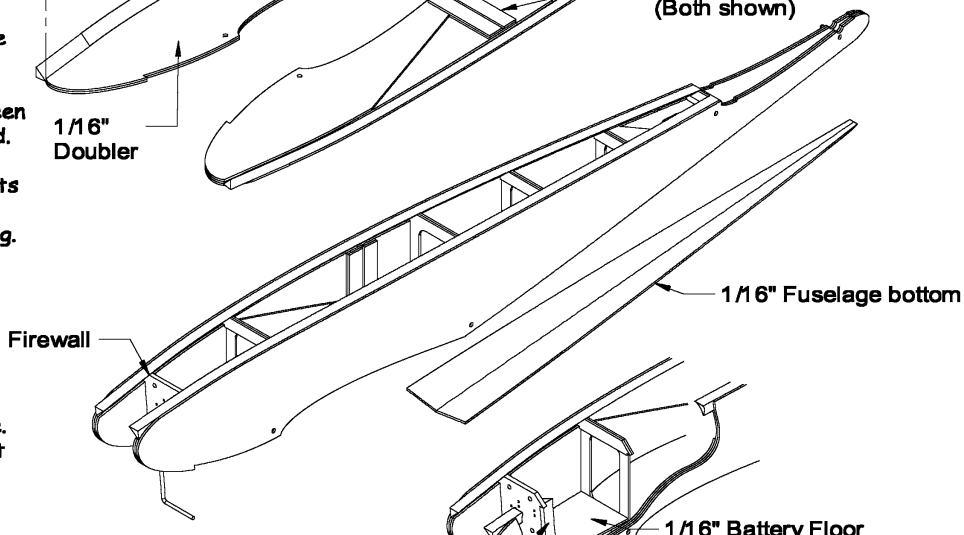
2

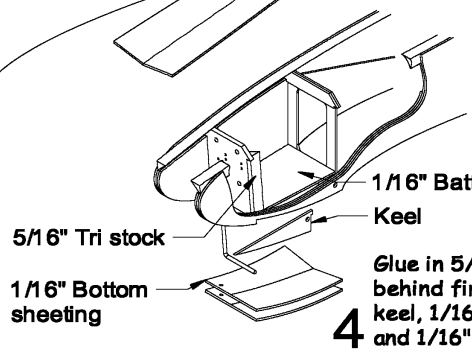
Glue doublers and triplers to sides using white glue such as Elmers or Wilhold. Spread glue evenly on both surfaces, and sprinkle a few grains of sand (from coarse sandpaper) between parts to prevent sliding when weight is applied. Temporarily, pile weights such as books to squeeze out excess glue. Then take off weights and remove excess glue from notches, etc. Replace weights to keep sides flat while drying. When dry add 1/16" fillers and 1/8" rear escapement rails.



3

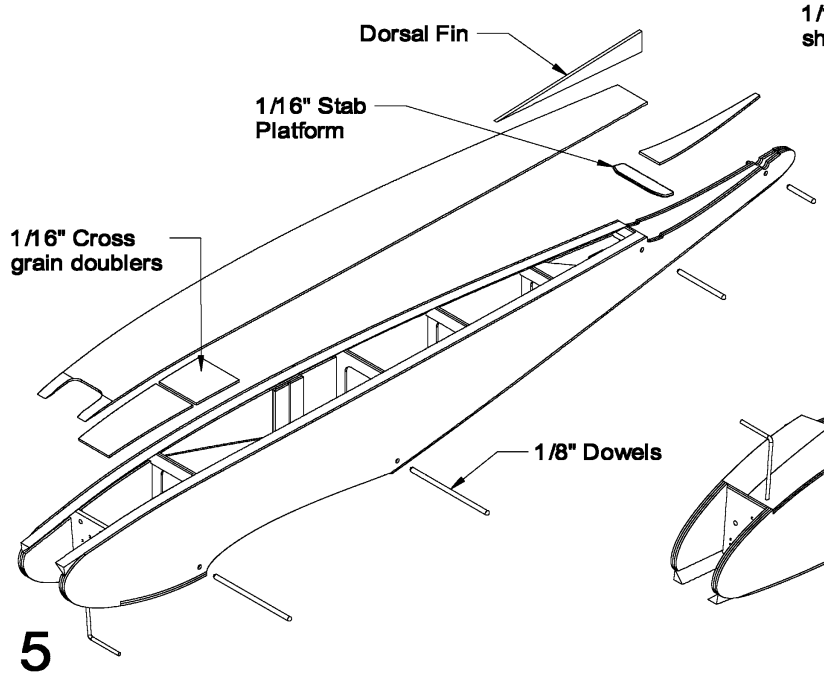
Join fuselage sides with all bulkheads in place. IMPORTANT: Proceed immediately to cement fuselage bottom in place to help assure good alignment.





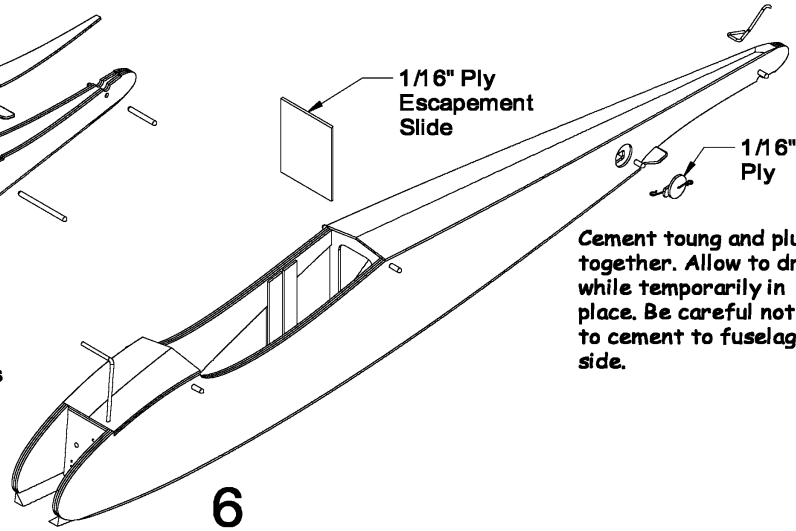
4

Glue in 5/16"" tri stock just behind firewall. Add 1/8" keel, 1/16" bottom sheeting, and 1/16" battery floor.



5

Add fuselage top. When dry, carve and sand fuselage to final shape. Cover fuselage before installind dowels and dorsal fin. Next add torque rod assembly, then 1/16" stab platform.

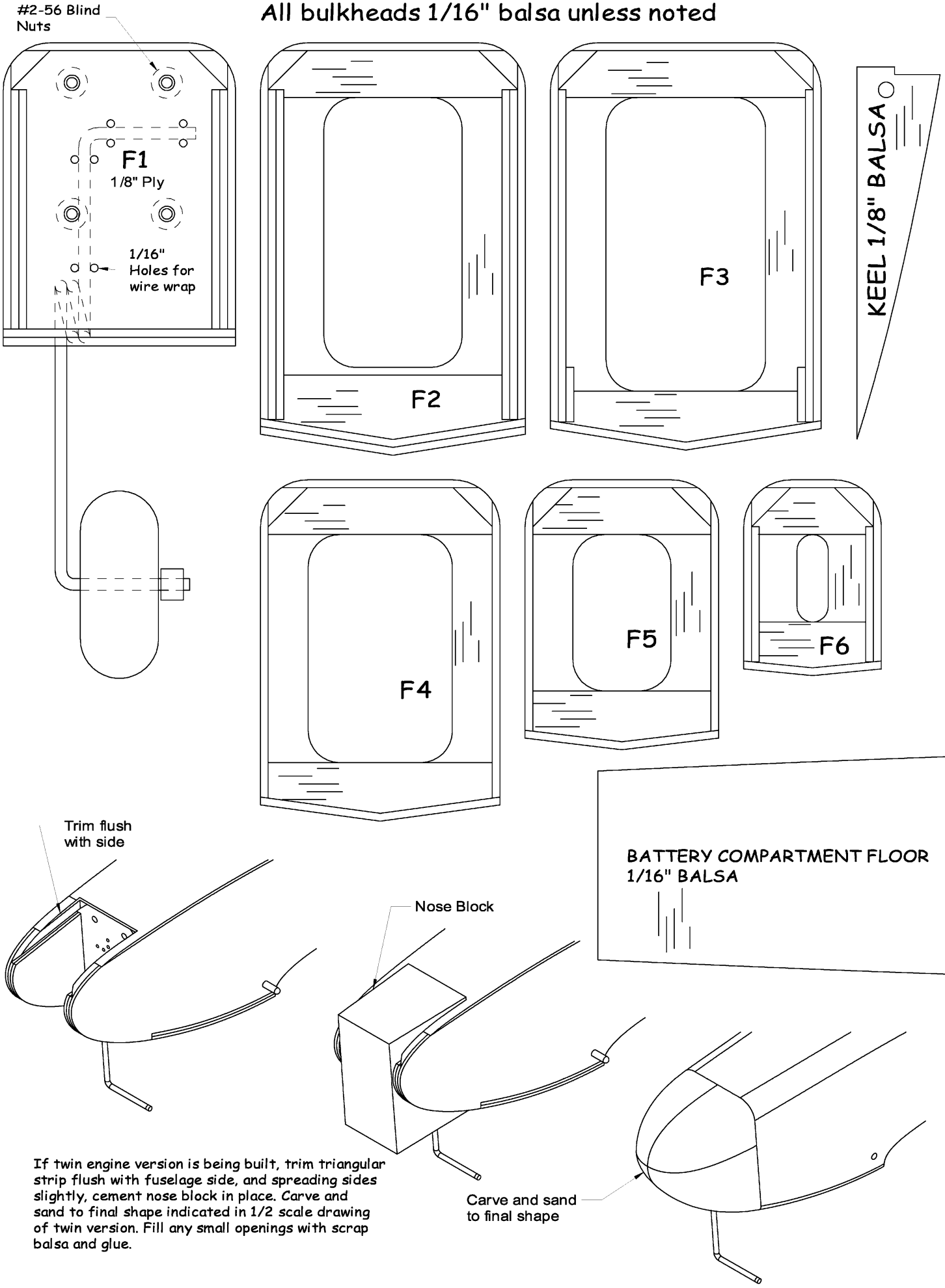


Cement toung and plug together. Allow to dry while temporarily in place. Be careful not to cement to fuselage side.

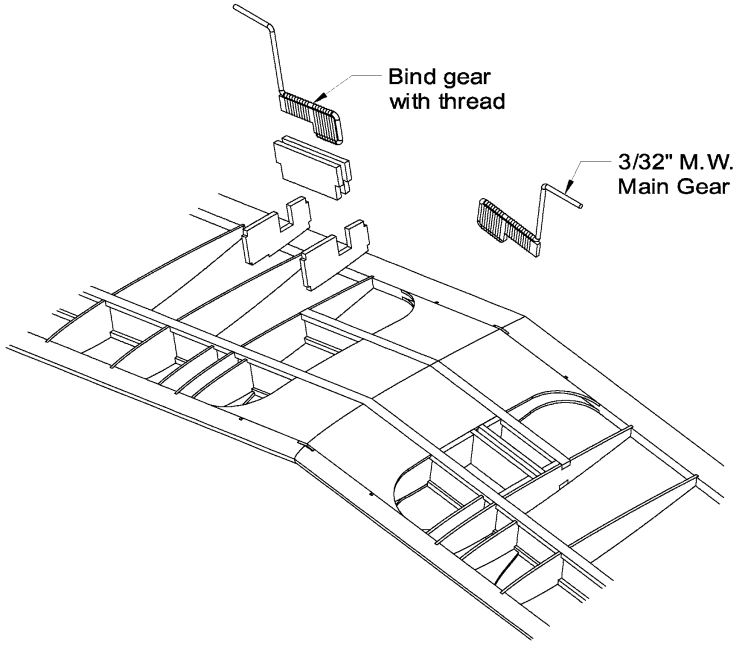
6

To install torque rod, drop a threaded needle through torque rod hole from rear. Cement thread to the very tip of torwue rod wire and draw back through hole at rear. When the rod swings freely, cement lower part of slide and remaining escapement and receiver slide rails in place.

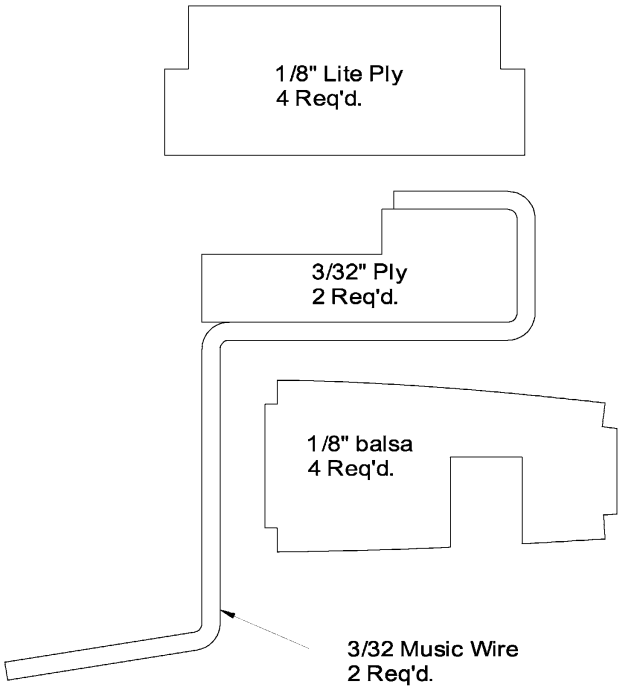
All bulkheads 1/16" balsa unless noted



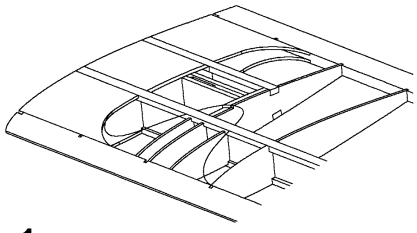
If twin engine version is being built, trim triangular strip flush with fuselage side, and spreading sides slightly, cement nose block in place. Carve and sand to final shape indicated in 1/2 scale drawing of twin version. Fill any small openings with scrap balsa and glue.



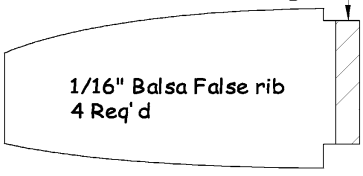
Do not cement thread wraped main gears in place until wind is covered.



Nacelle Assembly

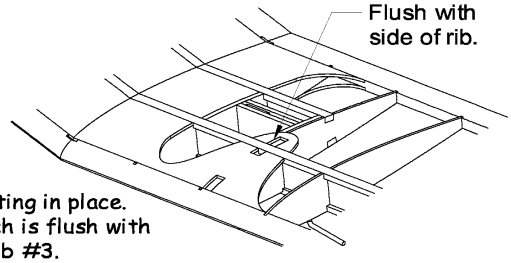


1/8" shear web up to wing rib #4 to support main landing gear. Use 1/16" shear webs for the remainder of wing.



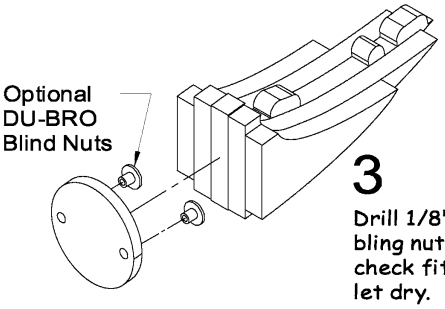
1

Install false ribs as indicated in dotted lines on wing plan view. When dry, recess wing rib #3 1/16" to receive sheeting.



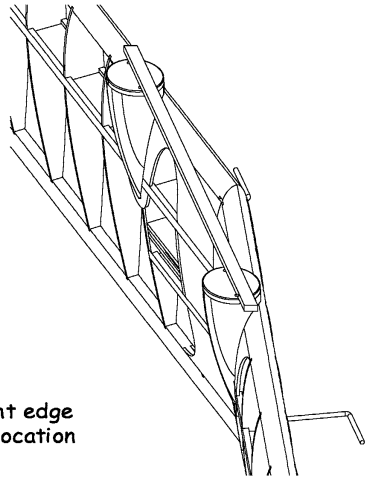
2

Cement nacelle sheeting in place. Be sure edge of notch is flush with outside surface of rib #3.



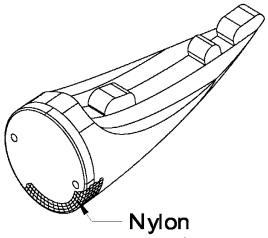
3

Drill 1/8" holes for engine. Install bling nuts. Assembly nacelles and check fit on wing. REMOVE and let dry.



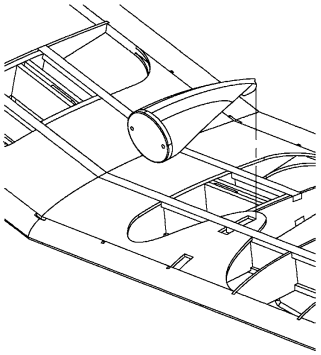
4

Line up holes with a straight edge and mark nacelle face for location of blind nut recess.



5

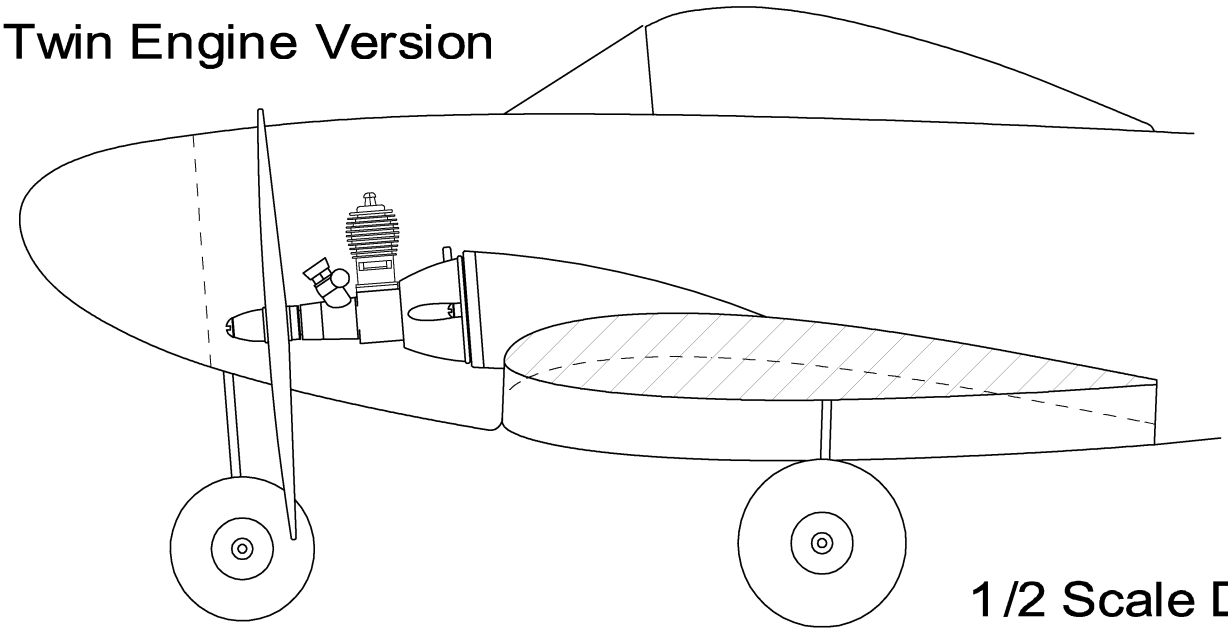
White glue firewalls to nacelles. When dry, carve and sand fo final shape. Add nylon reinforcement.



6

Cover wing and nacells seperately. Cut notches in wing covering and cement nacells securely in place. (Covering not shown.) NOTE: Iron on coverings will require removal of wing covering to within 1/16" of nacelle planform.

Twin Engine Version



1/2 Scale Drawing